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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,251	03/01/2002	Warren E. Cory	X-1045 US	4101
24309	7590	10/03/2005	EXAMINER	
XILINX, INC ATTN: LEGAL DEPARTMENT 2100 LOGIC DR SAN JOSE, CA 95124			JOSEPH, JAISON	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

UK

**Office Action Summary**

Application No.

10/090,251

Applicant(s)

CORY, WARREN E.

Examiner

Jaison Joseph

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 – 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kubinec (US Patent 6,031,473).

Regarding claim 1, Kubinec teach a transceiver connected to the data source and a data receiver comprising a serializer and a deserializer. a interface that receives a first set of date drom the data source at a second data rate and delivers a second set of data to serializer at the first data rate, the second data rate being lower than the first data rate when the control signal is at the first state and the second rate being same as the first data rate when the control signal is at the second rate (see figure 5 and column 4, line 46 – 65).

Regarding claim 2, which inherits the limitations of claim 1, Kubinec further teach said serializer is controlled by a reference clock signal, and a circuit generating a first

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clock signal based on the reference signal the first clock signal being used by the data source to deliver the first set of data to the interface, the first clock signal having a lower frequency than the reference clock signal when the control signal is at the first state (see figure 5).

Regarding claim 3, which inherits the limitations of claim 2, Kubinec further teach the first clock signal has a frequency substantially equal to half of the reference clock (see column 4, line 46 – 65)

Regarding claim 4, which inherits the limitations of claim 2, Kubinec further teach the first interface further inserts additional bits in the first set of data to generate second set of data. It is inherently known in the art that when increasing the data rate of the incoming signals, additional bits needed to be inserted in incoming signal.

Regarding claim 5, which inherits the limitations of claim 4, it is inherently known in the art that when increasing the frequency 2 times of the input bit, the input bit replicate itself to generate higher data rate signal.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claim 6, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubinec (US Patent 6,031,473).

Regarding claim 6, which inherits the limitations of claim 1, Kubinec further teach that a deserializer designed to operate at the first data rate and an interface to reduce the data rate (see figure 5, and column 4, lines 46 – 65). Kubinec failed to disclose a second interface that receives a third set of data from the deserializer at the first data rate and delivers a fourth set of data to the data receiver at the second data rate. However one of ordinary skilled in the art will be able to realize a second interface that receives a third set of data from the deserializer at the first data rate and delivers a fourth set of data to the data receiver at the second data rate since it is necessary for the received data to be compatible with system.

Regarding claim 10, which inherits the limitations of claim 6, It is inherently known in the art that when the data rate decrease, additional bits needed to be removed from t initial set of data.

Regarding claim 11, which inherits the limitations of claim 10, it is inherently known in the art that when increasing the frequency 1/2 times of the input bit, every alternate bit needed to be removed to generate the half frequency signal.

#### ***Allowable Subject Matter***

6. Claims 7 – 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

7. Karabinis discloses in US Patent 6,081,709 a dual mode data rate converter (see figure 6).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaison Joseph whose telephone number is (571) 272-6041. The examiner can normally be reached on M-F 8:30 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (571) 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jaison Joseph  
09/27/2005

  
**STEPHEN CHIN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**